

CURRICULUM VITAE

Revised 5/4/04

Avery Tung, M.D.

Associate Professor

Department of Anesthesia and Critical Care

Education: A.B. (chemistry) Magna Cum Laude, Harvard University
 Cambridge, Massachusetts
 M.D., University of Chicago, Pritzker School of Medicine,
 Chicago, Illinois
 Internship (medicine), University of California San Francisco,
 San Francisco, California
 Residency (anesthesiology), University of California
 San Francisco, San Francisco, California
 Fellowship (Intensive Care), Stanford University
 Stanford, California

Licensure:
 California
 Illinois

Certification:
 Anesthesia Board Certified
 Subspecialty certification in Critical Care Medicine
 Instructor, Advanced Burn Life Support

UNIVERSITY AND PUBLIC SERVICE:

University of Chicago:

Associate Professor, Department of Anesthesia and Critical Care	2002-present
Assistant Professor, Clinical, Department of Anesthesia and Critical Care	1995-2002
Chairman, Department CQI Committee	1998-present
Medical Director of the Burn/Critical Care Unit for Anesthesia	1998-present
Critical Care Committee member	1998-present

Hospital CQI committee member

2001-present

PROFESSIONAL
ACTIVITIES:

Professional Societies:

American Society of Anesthesiologists
American Society of Critical Care Anesthesiologists
Illinois Society of Anesthesiologists
International Anesthesia Research Society
Society of Critical Care Medicine
American Burn Association
Sleep Research Society

Member, Anesthesiology and Respiratory Therapy Devices Panel, Medical Devices Advisory Committee,
CDRH, FDA (2003-present)

Member, Subcommittee on Critical Care, American Society of Anesthesiologists 2002-3

Reviewer:

Anesthesiology
Journal of Clinical Anesthesia
Sleep
Brain Research

Honors and Awards:

Phi Beta Kappa
American Association for the Study of Liver Diseases
Student Research Prize
Alpha Omega Alpha
Teacher of the Year, Department of Anesthesia and Critical Care 1998
Best abstract of the meeting (Are anesthetics...), IARS 2000

Grants/Patents:

---Grant for project 1998
titled: "The Effects of Deep Nighttime Sedation on Restorative
Sleep in Rats"
PI: Tung (---)

---, --- 2000
PI: Tung (---)

NIH grant #1-K08-GM000697-01A1. "The effect of sedation on restorative sleep. PI: Tung (80%)	2001-05
---	2002
PI: Tung (---)	
US Patent #08/749,032. A New Spectrophotometric Assay for Cyanide.	1998
US Patent #09/639,036. Use of Solid Hydroxides as a Scavenging material for Cyanide Gas.	2002
US Patent #09/6,497,658. Alarm upon detection of impending sleep state	2002

LECTURES: Internal:

Extubation after major surgery. 8th Annual Conference, Challenges for Clinicians in the New Millennium, Chicago, IL	1996
Critical Care Anesthesia: Lessons from the Burn Unit. 10th Annual Conference, Challenges for Clinicians in the New Millennium, Chicago, IL	1998
Update on Mechanical Ventilation 11 th annual Conference, Challenges for Clinicians in the New Millennium, Chicago, IL	1999
ICU Sedation 2 nd annual conference, Challenges for Clinicians in the New Millennium, St. Thomas, US Virgin Islands	2000
Anesthesia for Burn Surgery Department of Anesthesia and Critical Care Grand Rounds	1998, 2001
New Anesthesia Ventilators: What can they do for you? 12 th annual Conference, Challenges for Clinicians in the New Millennium, Chicago, IL	2001
Resuscitating the Patient in Trouble Orientation to the Clinical Biennium	2001

Pritzker School of Medicine
Chicago, IL

Unconsciousness & Consciousness Biosci 270; The Conquest of Pain University of Chicago College Chicago, IL	2001-04
Anesthetics and Analgesics Clinical Therapeutics 307 Pritzker School of Medicine Chicago, IL	2002
Resuscitating the Patient in Trouble Orientation to the Clinical Biennium Pritzker School of Medicine Chicago, IL	2001-03
New Anesthesia Ventilators: What can they do for you? 13 th annual Conference, Challenges for Clinicians in the New Millennium, Chicago, IL	2002
Anesthetics and Analgesics Clinical Therapeutics 307 Pritzker School of Medicine Chicago, IL	2003
That can't be right! Albumin, the Swan Ganz catheter and Evidence-based medicine 14 th annual Conference, Challenges for Clinicians in the New Millennium, Chicago, IL	2003
Anesthesia Pharmacology Clinical Pathophysiology (2 nd year medical student course) Pritzker School of Medicine Chicago, IL	2004

LECTURES: External:

Perioperative management of the patient with ARDS
Refresher Course lecture

American Society of Anesthesiologists Annual Meeting 1999
Dallas TX

In-Hospital care of Burns. 1999

Paramedic and Critical Care Nurse Continuing Education Seminar
Southlake Methodist Hospital, Merrville, IN

Perioperative management of the patient with ARDS 2000

Visiting Professor lecture
Penn State-Geisinger Health System
Department of Anesthesia
Hershey, PA

Anesthesia for Major Burn Surgery 2000

Morbidity and Mortality conference
University of Illinois at Chicago
Department of Anesthesia
Chicago, IL

Burn Assessment and In-hospital treatment 2000

Advanced Trauma Assessment Course
Southlake Methodist Hospital, Merrville, IN

Perioperative management of the patient with ARDS

Refresher Course lecture
American Society of Anesthesiologists Annual Meeting 2000
San Francisco, CA

The Pharmacological manipulation of sleep by anesthetics

Research panel presentation
American Society of Anesthesiologists Annual Meeting 2000
San Francisco, CA

Ventilating the patient with altered lung mechanics

Illinois Society of Anesthesiologists Fall meeting 2000
Oak Brook, IL

The Pharmacological manipulation of sleep by anesthetics

Visiting Professor lecture
University of North Carolina 2000
Chapel Hill, NC

Effects Of Intravenous Anesthetics On Restorative Sleep

Visiting Professor lecture
University of Michigan Department of Anesthesia 2001

Ann Arbor, Michigan

Perioperative management of the patient with ARDS

Refresher Course lecture

American Society of Anesthesiologists Annual Meeting 2001

New Orleans, LA

The Pharmacological manipulation of sleep by anesthetics

Visiting Professor lecture

Mayo Clinic Department of Anesthesia

2002

Rochester, MN

Sleep, Sedation and Anesthesia

Midwest Clinical Conference

Chicago Medical Society

2002

Chicago, IL

New Anesthesia Ventilators: Pushing the envelope

2002

Midwest Anesthesia Conference

Chicago, IL

Shock and Fluid Resuscitation

2002

American Burn Association National Advanced Burn

Life Support (ABLS) Course

Chicago, IL

New Anesthesia Ventilators: Pushing the envelope

2002

Visiting Professor lecture

University of Colorado Department of Anesthesia

Denver, CO

Do they sleep? Sedation and sleep in the ICU

2002

Visiting Professor lecture

College of Physicians and Surgeons, Columbia University

New York, NY

Nutrition in the ICU

2002

ASCCA Review course lecture

Philadelphia, PA

Perioperative management of the patient with ARDS

2002

Refresher Course lecture

American Society of Anesthesiologists Annual Meeting

Orlando, FL

Sleep, Sedation and Anesthesia Midwest Clinical Conference Chicago Medical Society Chicago, IL	2003
Sedation in the ICU Sea Pines Anesthesiology Review Course University of South Carolina Hilton Head, SC	2003
That can't be right! Albumin and the Swan-Ganz Catheter Sea Pines Anesthesiology Review Course University of South Carolina Hilton Head, SC	2003
New Anesthesia Ventilators: Pushing the envelope Sea Pines Anesthesiology Review Course University of South Carolina Hilton Head, SC	2003
Perioperative management of the patient with ARDS Refresher Course lecture American Society of Anesthesiologists Annual Meeting San Francisco, CA	2003
Insulin and Tight Glucose Control: Why, who, how tight, how long? Breakfast Panel lecture American Society of Anesthesiologists Annual Meeting San Francisco, CA	2003
Sleep, Anesthesia, and the ICU Visiting Professor Lecture Stanford University Palo Alto, CA	2004
New Anesthesia Ventilators: Pushing the envelope Michigan Society of Anesthesiologists Annual Meeting Troy, MI	2004
Insulin and Tight Glucose Control: Why, who, how tight, how long	2004

Michigan Society of Anesthesiologists Annual Meeting
Troy, MI

BIBLIOGRAPHY

Peer Reviewed Journal Articles:

1. Hynson JM, Tung A. Complete airway obstruction during arthroscopic shoulder surgery. *Anesth Analg* 76:875-878, 1993
2. Tung A, Lynch J, McDade W, Moss J: A new rapid assay for measuring cyanide in blood. *Anesth Analg* 85:1045-1051, 1997
3. Tung A, Jacobsohn E: A case of nonoliguric renal failure after general anesthesia with sevoflurane and desflurane. *Anesth Analg* 85:1407-9, 1997
4. Tung A, Tadimeti L, Caruana-Montaldo B, Atkins PM, Mion LC, Palmer RM, Slomka J, Mendelson W. The relationship of sedation to deliberate self-extubation. *J. Clin Anesth* 2001;13:24-9
5. Tung A, Lynch JP, Mendelson W. Prolonged sedation in the rat does not result in sleep deprivation. *Anesth Analg* 2001;92:1232-6
6. Tung A, Bluhm B, Mendelson WB. The hypnotic effect of propofol in the medial preoptic area of the rat. *Life Sciences* 2001;69:855-62
7. O'Connor MF, Daves SM, Tung A, Cook RI, Thisted R, Apfelbaum J. BIS monitoring to prevent awareness during general anesthesia. *Anesthesiology* 2001;94:520-2
8. Tung A, Bluhm B, Mendelson WB. Sleep inducing effects of propofol microinjection into the medial preoptic area are blocked by flumazenil. *Brain Research* 2001;908:155-60
9. Morgan S, Kestner JJ, Hall JB, Tung A. Modification of a critical care ventilator for use during magnetic resonance imaging. *Resp Care* 2002;47:61-8
10. Tung A, Lynch JP, Roizen MF. Use of the BIS monitor to detect onset of naturally occurring sleep. *J. Clin Monitoring and Computing* 2002;17:37-42
11. Tung A, Morgan S. Modeling the effect of progressive endotracheal tube occlusion on tidal volume in pressure control mode. *Anesth Analg* 2002;95:192-7
12. Tung A, Szafran M, Bluhm B, Mendelson WB. Sleep deprivation potentiates the onset and duration of loss of righting reflex induced by propofol and isoflurane. *Anesthesiology* 2002;97:906-11

13. Tung A, Sweitzer B, Cutter T. Cardiac Arrest After Labetalol and Metoclopramide Administration in a Patient with Scleroderma (Case report). *Anesth Analg* 2002;95:1667-8
14. Tung A, Klapka J. Predicting postoperative pneumonia after major noncardiac surgery (Letter to the Editor). *Ann Intern Med.* 2002;137(7):620
15. Mendelson WB, Bergmann BM, Tung A. Baseline and post-deprivation recovery sleep in SCN-lesioned rats. *Brain Res.* 2003;980:185-90.
16. Tung A, Bergmann BM, Herrera S, Cao D, Mendelson WB. Recovery from sleep deprivation occurs during propofol anesthesia. *Anesthesiology* 2004 (in press)
17. Tung A, Drum M, Morgan SE. Effect of inspiratory time on tidal volume delivery in anesthesia and ICU ventilators operating in pressure control mode. *J Clin Anesth* 2004 (in press)

Peer Reviewed Abstracts:

1. Tung A, Gatmaitan Z, Arias IM: On the function of the $\text{Ca}^{++}\text{Mg}^{++}$ ATPase and 5' nucleotidase in bile canaliculi. American Association for the Study of Liver Diseases Annual Meeting, 1987
2. Tung A, Lynch J, Moss J: A new rapid assay to measure cyanide in biological fluids. *Anesthesiology* 85:A234, 1996
3. Tung A, Lynch J, Moss J: Sodalime Scavenges Cyanide Gas Effectively. *Anesthesiology* 89:A401, 1998
4. Tung A, Lynch J, O'Connor M, Mendelson W; Prolonged sedation in the rat does not lead to sleep deprivation. *Anesthesiology* 1999;91:A291
5. Tung A, Morgan S. Tidal volume changes in pressure control mode do not predict progressive endotracheal tube occlusion. *Anesthesiology* 1999;91:A317
6. Tung A, Morgan S. Impedance through the CO_2 absorber decreases tidal volumes at high respiratory rates. *Anesthesiology* 1999;91:A305
7. Tung A, Morgan S. The flow vs time waveform distinguishes between decreased compliance and increased airway resistance in pressure control mode. *Anesth Analg* 2000;92S:S144

8. Tung A, Mendelson WB. Are anesthetics sleeping pills? Sleep induction by injection of propofol into the medial preoptic area of rats. *Anesth Analg* 2000;92S:S474
9. Tung A, Noth I, Morgan S, Hall J. Increasing inspiratory limb volume reduces the variability in nitric oxide levels with continuous injection into an anesthesia circle system. *Anesth Analg* 2000;92S:S145
10. Tung A, Tadimeti L, Caruana-Montaldo B et al. The relationship of sedative and paralytic administration to deliberate self-extubation. *Sleep* 2000;23(S2):A162
11. Tung A, Morgan S. Delivery of Heliox by Anesthesia Machine Produces Error in Fresh Gas Flow and Tidal Volume Measurements. *Anesthesiology* 2000;93:A576
12. Tung A, Bluhm B, Mendelson WB. Flumazenil Blocks the Increase in Sleep after Propofol Microinjection into the Medial Preoptic Area of the Rat. *Anesthesiology* 2000;93:A803
13. Lynch J, Roizen MF, Tung A. Correlation of the BIS monitor with onset of natural sleep. *Anesth Analg* 2001;93:S122
14. Tung A, Bluhm B, Mendelson WB. Sedation with propofol does not alter the timing of recovery from sleep deprivation in the rat. (Abstract) Association of University Anesthesiologists Annual meeting 2001
15. Tung A, Bluhm B, Mendelson WB. Sleep deprivation potentiates the onset and duration of propofol anesthesia (Abstract). *Anesthesiology* 2001;95:A1369
16. Tung A, Lynch, JP, Hurst R, Jacubczyk S, Apfelbaum JL. What do patients prefer? Use of a self-administered, handheld computer based survey to obtain patient feedback after outpatient surgery. International Anesthesia Research Society annual meeting, 2002
17. Tung A, Lynch, JP, Hurst R, Jacubczyk S, Apfelbaum JL. What do patients expect from caregivers? Pain control efforts after outpatient surgery. International Anesthesia Research Society annual meeting, 2002
18. Tung A, Szafran MJ, Mendelson WB. Blockade of Basal Forebrain Adenosine A2a Receptors Reverses the Effect of Sleep Deprivation on Anesthetic Potency in the rat. ASA Annual meeting 2002
19. Tung A, Herrera S, Bergmann BM, Mendelson WB. Can Recovery from Sleep Deprivation Occur during General Anesthesia? Sleep Research Society Annual Meeting 2003
20. Tung A, Herrera S. Lesions of the Ventrolateral Preoptic Nucleus Potentiate Isoflurane-Induced Loss of Righting Reflex in the Rat. ASA Annual meeting 2003

Non-peer reviewed Book chapters/Reviews:

1. Tung A, Roizen MF: The real role of anesthesia in surgery. *Journal of the Museum of Science and Industry*, 38:5:10-15, 1987
2. Tung A, Rosenthal M: Patients requiring sedation. *Crit Care Clin* 11:791-802, 1995
3. Tung A: Aminophylline. *Essence of Anesthesia Practice*. Roizen MF, Fleisher LA, eds. Philadelphia: WB Saunders, 1997, p. 472
4. Tung A: Necrotizing Fasciitis. *Essence of Anesthesia Practice*. Roizen MF, Fleisher LA, eds. Philadelphia: WB Saunders, 1997, p. 232
5. Tung A: Indications for mechanical ventilation. *Int Anesth Clin* 35:1-17, 1997
6. Tung A: Management of Burns, Companion text to Principles of Critical Care. Hall J, Schmidt G, Wood LDH eds. New York: McGraw Hill 1999 p801-822.
7. Tung A: Perioperative management of the patient with ARDS. *ASA Refresher Courses in Anesthesiology* 2000;28: 229-38
8. Tung A. Perioperative ventilation of the vascular surgery patient. *Seminars in Cardiovascular and Thoracic Anesthesia* 2000;4:265-74
9. Tung A. Anesthesia for patients with stiff lungs. *MDvista Journal of Medicine* (TM) [serial online]. April 2001. Available at: <http://www.mdvista.com>.
10. Tung A, Rock P. Perioperative concerns in sleep apnea. *Curr Op Anaesth* 2001;14:671-8.
11. Jorden VS, Tung A. Dexmedetomidine: Clinical update. *Seminars in Anesthesiology, Perioperative medicine and Pain*. 2002;21:265-74.
12. Tung A, Mendelson WB. Sleep and Anesthesia. *Sleep Medicine Reviews* 2004 (in press)

TRAINEES:

Proprietary information has been deleted.

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